

**Amendments to the Specification**

**Please replace the paragraph beginning at page 7, line 3, with the following rewritten paragraph:**

C1                      FIGS. 30A-30E ~~shows~~ show a diagrammatic view of data flow between database servlets in the FIG. 2 system.

**Please replace the paragraph beginning at page 9, line 1, with the following rewritten paragraph:**

C2                      The dynamic pricing system 102 stores, dynamically prices, and delivers media content items to the clients 108 over the network 106. The dynamic pricing system 102 is also operable to receive media content from the clients 108. This media content can include, but is not limited to, music, books, movies, videos, television shows, software, coupons, tickets, web pages, magazines, newspapers, and other ~~type~~ types of electronic media. As should be appreciated from the discussion below, the dynamic pricing system 102 can be adapted to dynamically price goods and/or services, such as electronics and repair services. For instance, these goods and/or service items can include, but are not limited to, compact discs, digital versatile discs, electronic products, household products, jewelry, furniture, telephone services, and the like. It should be appreciated that such items, when purchased, can be delivered electronically over the network 106 and/or physically delivered, for example by a postal carrier. As illustrated, the dynamic pricing system 102 includes a

processor 110, a clock 111 and memory 112. The dynamic pricing system 102 can be located on a single server or distributed over several servers. In one embodiment, the dynamic pricing system 102 is incorporated into one or more web servers. The processor 110 is used to control the operation of the dynamic pricing system 102. The processor 110 may be comprised of one or more components. For a multi component form of processor 110, one or more components may be located remotely relative to the others, or configured as a single unit. Furthermore, processor 110 can be embodied in a form having more than one processing unit, such as a multi-processor configuration, and should be understood to collectively refer to such configurations as well as a single-processor-based arrangement. One or more components of the processor 110 may be of electronic variety defining digital circuitry, analog circuitry, or both. Processor 110 can be of a programmable variety responsive to software instructions, a hardwired state machine, or a combination of these. The clock 111 is used to time events in the dynamic pricing system 102. As should be appreciated, the clock 111 can be incorporated into the processor 110 or can be a stand-alone component. Further, the clock 111 can be hardware and/or software based. Among its many functions, the memory 112 in conjunction with the processor 110 is used to store media content and manage sales. Memory 112 can include one or more types of solid state memory, magnetic memory, or optical memory, just to name a few. By way of nonlimiting example, the memory 112 can include solid state electronic random access memory (RAM), sequential access memory (SAM), such as first-in, first-out (FIFO) variety or last-in, first-out (LIFO) variety, programmable read only memory (PROM),

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electronically programmable read only memory (EPROM), or electronically erasable programmable read only memory (EEPROM); an optical disc memory (such as a DVD or CD-ROM); a magnetically encoded hard disc, floppy disc, tape, or cartridge media; or a combination of these memory types. In addition, the memory ~~114~~ 112 may be volatile, non-volatile, or a hybrid combination of volatile, non-volatile varieties. In the illustrated embodiment, the memory 112 further includes removable memory 114. The removable memory 114 can be in the form of a non-volatile electronic memory unit, optical memory disk (such as a DVD or CD-ROM); a magnetically encoded hard disk, floppy disk, tape, or cartridge media; or a combination of these or other removable memory types.

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**Please replace the paragraph beginning at page 15, line 12, with the following rewritten paragraph:**

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A detailed illustration of one of many embodiments of the dynamic pricing system 102 is illustrated in FIG. 2. As shown, system 200 includes the dynamic pricing system 102 and one or more clients 108. Although not illustrated in FIG. 2, the client computer 108 in the FIG. 2 embodiment is operatively coupled to the dynamic pricing system ~~108~~ 102 through the network 106 in the same manner as illustrated in FIG. 1. In one form, the network 106 for the FIG. 2 dynamic pricing system 102 includes the Internet. The dynamic pricing system 102 in the FIG. 2 embodiment includes one or more connection servers 202, one or more navigation servers 204, one or more heartbeat (load balancing) servers 206, one or more database

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servers 208, one or more file servers 210, one or more master database servers 212, and one or more master file servers 214. Although servers 202, 204, 206, 208, 210, 212 and 214 are illustrated as separate units, it should be understood that selected servers or all of the servers can be combined to form a single unit. In one form, the dynamic pricing system 102 utilizes the Linux operating system with programs coded in the JAVA language. As should be appreciated, the dynamic pricing system can use other operating systems, such as UNIX, Windows and Apple Macintosh operating systems, to name a few. Further, the software in the dynamic pricing system 102 can be programmed in other languages besides JAVA, such as C++, Visual Basic, Fortran, Pascal, CGI and PERL, to name a few.

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**Please replace the paragraph beginning at page 36, line 5, with the following rewritten paragraph:**

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An example of a search results page 1700 is illustrated in FIG. 17. As illustrated, the search results page 1700 includes a modify search portion 1702 and a results portion 1704. With the modify search portion 1702, the user can submit another search to the dynamic pricing system 102. Portion 1702 has a search term field 1706 in which search terms are entered, a media type drop down list 1708 in which the type of media to be searched is entered, and a search button 1710 for submitting the search. The results portion 1704 of the search results page 1700 displays the results from the submitted search. Each row/record 1712 of the results portion 1704 contains information about an item, in this example a book, that matched

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the search criteria. As shown, each record 1704 in the results portion 1704 can display an image 1714, a title 1716, author 1718, file size 1720, and length 1722 of the work. In the illustrated example, image 1714 contains an image of the cover of the book, and length 1722 lists the number of pages the book contains. The results portion 1704 further contains a title header 1724 that allows the user to sort the records 1712 by title when selected and an author header 1726 that allows the user to sort the records 1712 by author when selected. The user can view additional details about the work by selecting a details link 1728 for the record 1712, and the user can preview the work by selecting a preview link 1730 for the record 1712. The content listed in the record 1720 can be bought by selecting buy link 1732. As shown, buy link 1732 lists a current dynamic price of the content. By selecting link ~~1732~~ 1734, the user can purchase and download the work.

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**Please replace the paragraph beginning at page 38, line 8, with the following rewritten paragraph:**

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As depicted in FIG. 23, a details page 2300 for a song is displayed on the client 108 when the link 2204 for the song is selected. The details page 2300 can also be accessed by selecting the details link 1728 in the search results page 1700 (FIG. 17). As illustrated in FIG. 23, the details page 2300 includes: a type portion ~~2304~~ 2302 in which the type of content, in this case “music”, is displayed; a title portion 2304 in which the title of the media content is listed, which in this example is the song title; and an artist name portion 2306 in which the name of the artist is listed. The genre,

such as jazz, for the content (song) is displayed in genre portion 2308, and any comments concerning the content are displayed in comments portion 2310. The file size for the content is displayed in size portion 2312, and the length of the content is displayed in length portion 2314. In the illustrated embodiment, the file size portion 2312 displays the file size of the song in megabytes (MB), and the length portion 2314 lists the length of the song in minutes. The details page 2300 can further include an image 2316 for the content, such as a picture of the album cover. The label for the album is displayed in label portion 2318. The other content type pages (i.e., the text page, the video/movie page, the photograph, and the software page) contain similar hierarchical page formats for accessing content.

**Please replace the paragraph beginning at page 39, line 3, with the following rewritten paragraph:**

To receive a dynamic price for the content listed in the details page 2300, the customer selects buy link 2320. In the illustrated embodiment, the customer receives a dynamic price for the song by selecting buy link 2320, which sends a signal to the dynamic pricing system 102 that indicates that the customer wants the current dynamic price for the song. In response to receipt of this signal, the dynamic pricing system 102 in stage 406 (FIG. 4) supplies a dynamic price for the song and generates a purchase window 2400 on the client 108 that lists the current, dynamic price for the song. Purchase window 2400 is also generated when the user selects the buy link

1732 in the search results page 1700 (FIG. 17). As illustrated in FIG. 24A, the

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purchase window 2400 includes a message portion 2402 with a dynamic price 2404 for the song, a purchase button 2406 in order to purchase the song, and a cancel button 2408 to not purchase the song. In the illustrated embodiment, the customer is given a specified time window to purchase the song. After the period elapses, the purchase window 2400 automatically closes. The purchase window 2400 can also be closed by selecting the cancel button 2408. In another embodiment, the dynamic pricing system 102 periodically refreshes the price 2404 in the purchase window 2400. The price 2404 for a particular item, such as the song shown, and/or for a group of items is generated and dynamically adjusted by server 102. In one embodiment, the price is adjusted based on demand for the item so as to maximize profit. Generally, the greater demand for the particular item, server 102 will increase the price until the profit is maximized, and when the demand for the item is lower, the dynamic pricing system 102 lowers the price until the profit is maximized. The price of a song can also be dynamically adjusted based on other factors such as the amount of transfer time, the length of the song and overall quality of the song, to name a few factors. When the purchase button 2406 is selected, the dynamic pricing system 102 deducts the purchase price 2404 from the account of the user (see field 390) and the purchased item is transferred from the dynamic pricing system 102 to the customer device 124 over the network 106 in stage 408. When the user does not have enough money in their account, the dynamic pricing system 102 requests the user to deposit additional funds into their account before downloading the item. In one embodiment, the

hypertext transfer protocol (HTTP) is used to download the item from the dynamic

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pricing system 102. In another embodiment, the file transfer protocol (FTP) is used to download the item from the dynamic pricing system 102 to the client 108. As should be appreciated, items can be downloaded in other manners and using other types of protocols. For example, in the above-described P2P embodiment of the dynamic pricing system 102, the purchased item is transferred over the network 106 directly from the content supplier computer 116 to the customer device 124. During downloading, screen 2400 is changed to downloading screen 2400a (FIG. 24B), which indicates the download status of the item. Screen 2400a contains a message portion 2452 that displays the status of the download and a close button 2454 for closing screen 2400a. After the item is successfully downloaded, message 2452 indicates that the download process is complete. If the download is unsuccessful, message 2452 indicates that the download was not completed, and the dynamic pricing system 102 gives the customer a certain amount of time, such as two days, from the purchase to download the item without being charged again for the item.

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**Please replace the paragraph beginning at page 52, line 8, with the following rewritten paragraph:**

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In stage 2610, the processor 110 determines the average time delay ((AVE(t)) between purchases. In one form, the average time delay is calculated for all purchases, and in another form, the average time delay is calculated for a set number (N) of previous purchases so as to take into account shifts in the demand curve. In one



particular form, the average time delay is calculated for the last 10 periods ( $N = 10$ ).

Equation-~~13~~ 15 below illustrates how the average time delay is calculated.

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$$AVE(t) = \frac{t_i + t_{i-1} + \dots + t_{i-N+1}}{N} \quad (\text{Equation 15})$$

Where

$AVE(t)$  = Average Time Delay Between Purchases

$t_i$  = Time delay Purchase Period  $i$

$N$  = Number of Periods

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**Please replace the paragraph beginning at page 56, line 22, with the following rewritten paragraph:**

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When in stage 2710 the quantity ordered at the adjusted price is greater than zero (0), the processor 110 determines whether the profit at the current price is at least equal to the best profit stored in memory 112. In one form, the processor 110 determines profit by using Equation 2, above. As should be appreciated, the dynamic pricing system 102 can take into account other factors when determining the profit. For example, these factors can include fixed costs, bandwidth used, and file size, to name a few. If in stage 2714 the current profit is equal to or better than the best profit at the best price, which is stored in memory 112, then the processor 110 in stage 2716 sets the current price as the best price in memory 112. In one form, the processor 110 also stores in memory 112 the quantity ordered at the now, best price such that profit can be calculated. In another form, the processor 110 stores in the memory 112 the

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current profit as the best profit. Following stage 2716, the processor 110 randomly increases the price for the item within a specified range above the current price. This range limit can be predefined and/or determined through historical data. In one form, the random price is generated within a range from 0% to 10% above the current price. ~~As should~~ It should be appreciated that the processor 110 can use a number of techniques for generating the random numbers (pseudo-random) as would occur to those of ordinary skill in the art. When an upper limit in price is defined, the price of the item will only be increased to the upper limit price. After the price is increased in stage 2708, the processor 110 proceeds to stage ~~2708~~ 2718 and records the quantity ordered (Q<sub>a</sub>) at the new adjusted price. By changing the best price in stage 2716 even when the current profit is equal to the best profit in stage 2714, removes old best prices that may be based on a different demand curve.

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**Please replace the paragraph beginning at page 64, line 7, with the following rewritten paragraph:**

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As shown in FIGS. 30A-30E, each database server 208 includes a number of servlets 2801 that perform specific tasks on the database server 208. Perform query servlet 3002 can be called by any other part the dynamic pricing system 102, as shown by arrow 3004. As shown by arrow 3006, servlet 3002 can query, insert and/or delete records from the tables 302 of the databases 225. The results of the query, as indicated with arrow 3008, can be returned to servlet 3002.

**Please replace the paragraph beginning at page 64, line 13, with the following rewritten paragraph:**

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As indicated by arrow 3010 in FIG. 30B, search servlets 2812 on the navigation servers 204 call execute search servlet 3012 on the database servers 208 in order to search for particular keywords in the media information tables 304. To improve response time for queries, the database servers 210 each maintain a keyword cache 3014 along with a media and pricing information cache 3016. The keyword cache 3014 is structured like the keyword table 308 and maintains a temporary list of popular keyword searches. The media and pricing information cache 3016 temporarily stores information about individual media items along with their current price. Like the keyword tables 308 and the media information tables 304, keyword cache 3014 and media cache 3016 are linked to one another via the media ID 318. When the execute search servlet 3012 receives a simple, or default search request, the execute search servlet 3012, as shown by arrow 3018, first queries the keyword cache 3014. For instance, a simple search can occur when the user is browsing by media type, such as the searches submitted through field 512. When the keyword cache 3014 contains the search keyword, the media cache 3016 returns the search results to servlet 3012, which is depicted with arrow 3020. As shown by arrow 3022, when the keyword cache 3014 does not include an entry for the keyword, the keyword table 308 is then queried. The keyword table 308 is directly queried by servlet 3012, when the user submits an explicit search, such as with form 1600 (arrow 3024). As mentioned above, the keyword 308 and pricing 306 tables are related to the media information

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table 304 via the media ID field 318. As shown by arrow 3026, the search results from tables 304 and 306 are returned to the execute search servlet 3012, which in turn returns the results to the search servlet 2812 (FIG. 28). As previously discussed, the search results can include the dynamic price for an item, such as a song. The dynamic price for the item is either retrieved from cache 3016 or from the pricing table 306.

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**Please replace the paragraph beginning at page 65, line 15, with the following rewritten paragraph:**

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As illustrated in FIG. 30, get media file information servlet 3028 is used to retrieve media and pricing information that is used by the file servers 210. As shown by arrow 3030, the file servers 210 can call servlet 3208. The media information servlet 3028 first sends all requests (arrow 3032) to the media cache 3016. If cache 3016 is able to process the request, the search results (arrow 3034) are returned to servlet 3028. When cache 3016 is unable to process the request, the search request is then processed by the media 304 and pricing 306 tables (arrow 3036). In response to the request, tables 304 and 306 insert a new entry corresponding to the search results into the media cache (arrow ~~3036~~ 3038) and return the search results to the media information servlet 3028 (arrow 3040). Afterwards, the search results from servlet 3028 are then returned to the calling file server 210.

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Please replace the paragraph beginning at page 70, line 12, with the following rewritten paragraph:

C12 To submit the work, the content supplier ~~3314~~ selects submit button 3314, and in response, the content provider computer 116 transfers over the network 106 the file specified in the file location field 3306 along with the other information from form 3300 to the dynamic pricing system 102. As should be appreciated, with the P2P embodiment of the dynamic pricing system 102, the client 108 only needs to ~~transfers~~ transfer the information from form 3300 to system 102 and does not need to transfer the file. However, in another form of the P2P embodiment, the file is transferred. In stage 3104, the dynamic pricing system 102 receives the file containing the downloaded content and the other information from form 3300. The dynamic pricing system 102 stores the downloaded file in at least one of the file servers 210 and submits the information about the work to the database servers 208. In another embodiment, the dynamic pricing system 102 adds the work to the master database server 212 and the master file server 214, which in turn ~~update~~ updates the database 208 and file 210 servers so as to incorporate the new work. In the pricing form 3300, the content provider can cancel a submission by selecting cancel button 3316.